IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of

Stephen N. Phillips

Patent No.: 7,057,805

Issued: June 6, 2006

Title: SOLAR CONTROL FILM CONTAINING CARBON BLACK AND PROCESS FOR PREPARING THE SOLAR CONTROL FILM

ATTN: Certificate of Correction Branch

REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION UNDER 37 C.F.R §1.322

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Issuance of a Certificate of Correction for the above-captioned patent is respectfully requested in accordance with the accompanying Form PTO-1050.

On October 20, 2003, applicant filed an Amendment including the cancellation of claims 23-29. As a result of the cancellation of these claims, the sole inventor of the remaining claimed subject matter was Stephen N. Phillips. Thus, applicant properly filed a grantable request pursuant to 37 CFR §1.48(b) to change the inventorship due to the aforementioned canceled claims by deleting George L. Quinlan as a named inventor. A complete copy of the October 20, 2003 filing is attached hereto as Exhibit A. This submission is also present in the Image File Wrapper associated with this patent.

George L. Quinlan had previously assigned all rights in the above-identified patent to Commonwealth Laminating and Coating Inc. The assignment was recorded at Reel 012282, Frame 0270.

As set forth in MPEP §605.04(g), the Examiner should have instructed the Technical Center's support staff to enter the correction in the PALM database and print a new bibliographic data sheet which would then be placed in the file wrapper. Apparently, this was never done. As a result, the above-identified U.S. Patent No.

7,057,805 issued incorrectly listing both Stephen N. Phillips and George L. Quinlan as co-inventors due to this administrative oversight.

Thus, the Assignee of record of the entire right and interest in U.S. Patent No. 7,057,805, through its legal representative, respectfully requests that this error be corrected by issuance of a Certificate of Correction. A Form-1050 is attached hereto.

In the event that the above-noted circumstances are not considered to be an error of the Patent Office, it is respectfully requested that the submission be considered pursuant to 37 CFR §1.323, and any fees necessary be charged to the Deposit Account according to the authorization contained below.

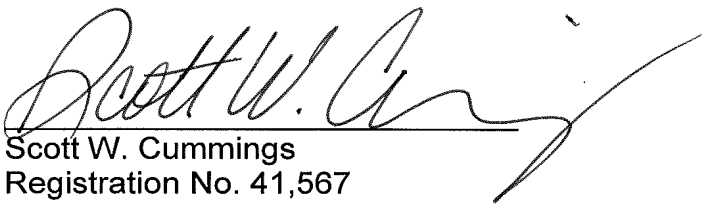
The Patentee further requests that should this submission be considered deficient in any manner, an opportunity to supplement the same is hereby expressly reserved.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: July 28, 2010

By: 
Scott W. Cummings
Registration No. 41,567

Customer No. 21839
703 836 6620

EXHIBIT A

Inventor: Stephen N. PHILLIPS Appln. No. 09/982,813 Filing Date: October 22, 2001

Docket No.: 032732-002 Work. Atty. SWC/geh Date: October 20, 2003

The following was/were received in the U.S. Patent and Trademark Office on the date stamped hereon: 26

- ☒ Amendment or Response
- ☐ Preliminary Amendment
- ☒ Reply Transmittal Letter
- ☐ Petition for _ Month Extension of Time
- ☐ Submission of Formal Drawings w/_ sheet(s) of drawings (Fig(s). 1-_)
- ☐ Request for Approval of Drawing Changes w/_ sheet(s) of red ink drawings
- ☐ Notice of Appeal
- ☐ Brief for Appellant
- ☐ Request for Oral Hearing
- ☐ Reply Brief
- ☐ Response to Restriction Requirement or Election of Species
- ☐ Terminal Disclaimer
- ☐ Certificate Under 37 C.F.R. § 3.73(b)
- ☐ Transmittal Letter for Missing Parts of Application
- ☐ Executed Declaration/Power of Attorney
- ☐ Assignment/Assignment Recordation Form Cover Sheet (PTO-1595)
- ☐ Submission of Certified Copy of Priority Document w/_ certified copy(s)
- ☐ Information Disclosure Statement w/_ document(s)
- ☐ Information Disclosure Citation (PTO-1449)
- ☐ Information Disclosure Statement Transmittal Letter
- ☐ Request for Corrected Notice of Recordation of Assignment w/copy of Notice
- ☐ Request for Continued Examination
- ☒ Check for $ 130.00 is enclosed
- ☐ Check for $__ is enclosed
- ☐ Charge $__ to Deposit Account
- ☐ Issue Fee Transmittal
- ☐ Payment of Issue Fee and Authorization to charge Deposit Account
- ☐ Request for Refund
- ☐ Status Inquiry
- ☐ Request for Corrected Filing Receipt w/copy of Official Filing Receipt
- ☒ Request Pursuant to 37 C.F.R. §1.48 to Change Inventorship
- ☐
- ☐

(10/03)

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EXHIBIT A

Patent
Attorney's Docket No. 032732-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Stephen N. PHILLIPS	)	Group Art Unit: 2872
	)	
Application No.: 09/982,813	)	Examiner: Craig Curtis
	)	
Filed: October 22, 2001	)	Confirmation No.: 8278
	)	
For: SOLAR CONTROL FILM CONTAINING CARBON BLACK AND PROCESS FOR PREPARING THE SOLAR CONTROL FILM	)	

AMENDMENT/REPLY TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is a reply for the above-identified patent application.

[ ] A Petition for Extension of Time is also enclosed.

[ ] A Terminal Disclaimer and the [ ] $55.00 (2814) [ ] $110.00 (1814) fee due under 37 C.F.R. § 1.20(d) are also enclosed.

[X] Also enclosed is/are Request Pursuant to 37 C.F.R. §1.48 to Change Inventorship.

[ ] Small entity status is hereby claimed.

[ ] Applicant(s) requests continued examination under 37 C.F.R. § 1.114 and enclose the [ ] $385.00 (2801) [ ] $770.00 (1801) fee due under 37 C.F.R. § 1.17(e).

[ ] Applicant(s) requests that any previously unentered after final amendments not be entered. Continued examination is requested based on the enclosed documents identified above.

[ ] Applicant(s) previously submitted ___, on ___, for which continued examination is requested.

[ ] Applicant(s) requests suspension of action by the Office until at least ___, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.

DOCKETED
filed 10/20/03

(10/03)

EXHIBIT A

[ ] A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (1809/2809) is also enclosed.

[X] No additional claim fee is required.

[ ] An additional claim fee is required, and is calculated as shown below:

AMENDED CLAIMS					
	NO. OF CLAIMS	HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	ADD'L FEE
Total Claims		MINUS =		× $18.00 (1202) =	
Independent Claims		MINUS =		× $86.00 (1201) =	
If Amendment adds multiple dependent claims, add $290.00 (1203)					
Total Claim Amendment Fee					
If small entity status is claimed, subtract 50% of Total Claim Amendment Fee					
TOTAL ADDITIONAL CLAIM FEE DUE FOR THIS AMENDMENT					$0.00

[ ] A total fee in the amount of $ _____ is enclosed.

[ ] Charge $_____to Deposit Account No. 02-4800.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: October 20, 2003

By: _____
Scott W. Cummings
Registration No. 41,567

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

EXHIBIT A

Patent
Attorney's Docket No. 032732-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Stephen N. PHILLIPS	)	Group Art Unit: 2872
	)	
Application No.: 09/982,813	)	Examiner: Craig Curtis
	)	
Filed: October 22, 2001	)	Confirmation No.: 8278
	)	
For: SOLAR CONTROL FILM CONTAINING CARBON BLACK AND PROCESS FOR PREPARING THE SOLAR CONTROL FILM	)	

AMENDMENT PURSUANT TO 37 C.F.R. §1.111

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In complete response to the Official Action dated July 21, 2003, please amend the above-identified application as follows.

EXHIBIT A

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A solar control film comprising:

a) an adhesive layer for adhering the solar control film to a substrate;

b) ~~a metallized layer~~ no more than two metallized layers; and

c) a scratch resistant layer containing dispersed carbon black particles

wherein the metallized layer is between the adhesive layer for adhering to a substrate and the scratch resistant layer.

2. (Original) The solar control film of claim 1 wherein the adhesive layer comprises a pressure sensitive adhesive.

3. (Original) The solar control film of claim 1 wherein the adhesive layer comprises a dry adhesive.

4. (Original) The solar control film of claim 1 wherein a releasable liner is present on the adhesive layer.

EXHIBIT A

5. (Original) The solar control film of claim 1 wherein the metallized layer is comprised of aluminum deposited on a polymeric substrate.

6. (Original) The solar control film of claim 5 wherein the polymeric substrate comprises polyethylene terephthalate.

7. (Original) The solar control film of claim 1 wherein the scratch resistant layer comprises from about 1 to about 10% by weight of the carbon black particles.

8. (Original) The solar control film of claim 1 wherein the scratch resistant coating comprises from about 2 to about 3% by weight of the carbon black particles.

9. (Original) The solar control film of claim 1 wherein the carbon black particles have an average particle size in the range of from about 0.2 to about 5.0 microns.

10. (Original) The solar control film of claim 1 wherein the carbon black particles have an average particle size in the range of from about 0.2 to about 0.5 microns.

11. (Original) The solar control film of claim 1 wherein the scratch resistant layer comprises an acrylic resin.

12. (Original) The solar control film of claim 11 wherein the acrylic resin is prepared from a mixture of pentaerythritol triacrylate ester and pentaerythritol tetraacrylate ester.

13. (Original) The solar control film of claim 1 wherein the acrylic resin is prepared from pentaerythritol tetraacrylate ester, pentaerythritol triacrylate ester and an acrylated epoxy compound.

14. (Original) The solar control film of claim 1 wherein the scratch resistant layer has a thickness in the range of from about 0.5 to about 3.0 microns.

15. (Original) The solar control film of claim 1 wherein the scratch resistant layer has a thickness in the range of from about 0.8 to about 1.8 microns.

16. (Original) The solar control film of claim 1 wherein the solar control film has a visible light transmittance of from about 10% to about 80% and a visible light reflection of from about 0% to about 8%.

17. (Original) The solar control film of claim 1 wherein the solar control film has a haze of less than about 7%.

18. (Original) The solar control film of claim 1 further comprising a polymeric film between the adhesive layer and the metallized layer.

19. (Original) The solar control film of claim 18 wherein the polymeric film is composed of polyethylene ethylene terephthalate.

20. (Original) The solar control film of claim 19 wherein the polymeric film includes an ultraviolet absorbent.

21. (Original) The solar control film of claim 18 comprising a plurality of metallized layers.

22. (Original) The solar control film of claim 21 wherein a polymeric film is located between adjacent metallized layers.

Claims 23-29 (Canceled)

30. (New) A solar control film comprising:

a) an adhesive layer for adhering the solar control film to a substrate;

b) a metallized layer; and

c) a scratch resistant layer containing dispersed carbon black particles wherein the metallized layer is between the adhesive layer for adhering to a substrate and the scratch resistant layer;

wherein the solar control film has a visible light transmittance of about 10% to about 80%, a visible light reflection of about 0% to about 8%, and a haze of less than about 7%.

31. (New) The solar control film of claim 30, wherein the film comprises no more than two metallized layers.

EXHIBIT A

REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action summary, claims 1-29 were pending. By the present response, claim 1 has been amended, claims 23-29 have been canceled, and claims 30-31 have been added. Thus, upon entry of the present response, claims 1-22, 30 and 31 are pending and await further consideration on the merits.

Support for the foregoing amendments can be found at least at the following locations in the original disclosure: Figures 1-3; Examples 1-3; and the original claims.

The applicant thanks Examiner Curtis for the courtesies extended to applicant's representative during a personal interview conducted on October 14, 2003. During the personal interview, the current amendment to claim 1 was discussed, and in particular, how amended claim 1 distinguishes the present invention from the applied prior art. As indicated in the Examiner's Interview Summary, it was agreed that should the Examiner believe that further amendments to the claims be necessary in order to place the application in condition for allowance, that the Examiner would contact applicant's representative to propose suitable claim amendments.

CLAIM REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claims 24, 27 and 28 stand rejected under 35 U.S.C. §112, second paragraph, on the grounds set forth in paragraph 1 of the Official Action. By the present response, claims 23-29 have been canceled, thereby obviating the above-noted grounds for rejection.

CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-11, 14-19, 21 and 23-29 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 6,007,901 to Maschwitz et al (hereafter "*Maschwitz et al*") in view of U.S. Patent No. 3,907,727 to Lipp (hereafter "*Lipp*") on the grounds set forth in paragraph 2 of the Official Action. This rejection, as it would be applied to amended claim 1 and newly presented claim 30, is respectfully traversed.

The presently claimed invention is directed to a solar control film which includes an adhesive layer, one or more metallized layers, and a scratch-resistant layer containing dispersed carbon black particles. The solar control film of the presently claimed invention represents a substantial advance in the art in that it can provide a solar control film which effectively reduces visible light and infrared transmission, without distortion and with reduced internal reflection. For instance, depending upon the amount of carbon black used, the solar control film of the present invention can exhibit a visible light transmission from about 10 to about 80%, and a haze which is less than 7%. In addition, the carbon black provides a pleasing gray color and, in contrast to known organic dyes, does not fade over time and does not significantly create haze.

A solar control film constructed according to the principles of the present invention is set forth in amended claim 1. Amended claim 1 recites:

> *1. A solar control film comprising:*
> *a) an adhesive layer for adhering the solar control film to a substrate;*
> *b) no more than two metallized layers; and*
> *c) a scratch resistant layer containing dispersed carbon black particles wherein the metallized layer is between the adhesive layer for adhering to a substrate and the scratch resistant layer.*

According to a further aspect, a solar control film constructed according to the present invention is defined by claim 30. Claim 30 recites:

> *30. A solar control film comprising:*
> *a) an adhesive layer for adhering the solar control film to a substrate;*
> *b) a metallized layer; and*
> *c) a scratch resistant layer containing dispersed carbon black particles wherein the metallized layer is between the adhesive layer for adhering to a substrate and the scratch resistant layer;*
> *wherein the solar control film has a visible light transmittance of about 10% to about 80%, a visible light reflection of about 0% to about 8%, and a haze of less than about 7%.*

Neither *Maschwitz et al*, taken alone or in combination with *Lipp*, disclose or suggest those features required by the presently claimed invention.

Maschwitz et al is directed to a heat reflecting fenestration product with color corrective and corrosion protective layers. All of the embodiments disclosed by *Maschwitz et al* contain at least an infrared reflecting metal layer, a color correcting metal layer, as well as a protective metal layer. Thus, *Maschwitz et al* teaches a laminate including at least

three metallized layers. As discussed in the present specification, complex multi-layer laminates such as those described by *Maschwitz et al* are expensive and complicated to manufacture, and have an inherently low moisture vapor transmission rate which typically results in excessively long drying times for the pressure sensitive adhesive attachment or insulation systems employed to affix the film to a window. In many cases this can result in fogginess or haze which can disrupt window esthetics after installation. (See, e.g. - page 3, line 13 through page 4, line 12 of the present specification).

By contrast, claim 1 recites a solar control film having a construction which includes no more than two metallized layers. Thus, the solar control film of claim 1 avoids those disadvantages associated with laminates constructed according to the teachings of *Maschwitz et al.*

Lipp is applied as allegedly teaching preparing acrylate sheets containing dispersed carbon black particles. However, even if the teachings of *Lipp* were combined with the teachings of *Maschwitz et al* in the manner proposed, the claimed invention would not result. Namely, *Lipp* also fails to disclose or suggest the solar control film having the features required by amended claim 1.

The remaining claims rejected on the above-noted basis depend from claim 1. Thus, these claims are also distinguishable over the proposed combination for at least the same reasons noted above.

Newly presented claim 30 represents a combination of the features contained in original claims 1, 16 and 17. Newly presented claim 30 is also distinguishable over the

above-noted combination of *Maschwitz et al* and *Lipp*. For example, newly presented claim 30 is directed to a solar control film having a structure including an adhesive layer, a metallized layer, and a scratch-resistant layer containing dispersed carbon black particles. The solar control film of claim 30 further requires that the solar control film has a visible light transmittance of about 10 to 80%, a visible light reflection of about 0 to 8%, as well as a haze of less than about 7%. The proposed combination of *Maschwitz et al* and *Lipp* fails to disclose, or even suggest, the combination of features contained in newly presented claim 30. For instance, as discussed above, the complicated multi-component laminate structure of *Maschwitz et al* is prone to haze. By contrast, the solar control film of newly presented claim 30 has a haze value which is less than 7%. While it is noted that in paragraph 2 of the Official Action the disclosure of *Lipp* is identified as teaching providing a haze of less than about 7%, this assertion is respectfully traversed.

What *Lipp* teaches in this regard is simply that either a single acrylate sheet impregnated with carbon black, or an impregnated acrylate sheet sandwiched between teflon sheets possesses a relatively low haze. However, nothing contained in *Lipp* suggests that a similar haze value is possessed by the laminate described by *Maschwitz et al*, much less a laminate having those features recited in newly presented claim 30. In other words, the haze value attributed to the single sheet, or entirely different laminate of *Lipp*, is not probative with regard to the haze value of the complicated multi-component laminate structure of *Maschwitz et al*, or for that matter, the laminate constructed according to the requirements of the presently claimed invention.

Thus, for at least the reasons noted above, newly presented claim 30 is also distinguishable over the proposed combination.

Newly presented claim 31 additionally requires that the laminate contain not more than two metallized layers. As discussed above, the teachings of *Maschwitz et al* are entirely inapposite in this regard. Namely, *Maschwitz et al* teaches that in order to obtain the desired visible light transmission and visible light reflection values, a very complicated multi-component laminate is to be utilized which includes at least three metallized layers.

Claims 12 and 13 stand rejected under 35 U.S.C. §103(a) as being obvious over *Maschwitz et al* in view of *Lipp*, as applied to claim 1, and further in view of U.S. Patent No. 4,978,726 to Dohler et al (hereafter "*Dohler et al*") on the grounds set forth in paragraph 3 of the Official Action. This rejection is respectfully traversed.

Dohler et al is cited as allegedly teaching acrylic resin prepared from a mixture of pentaerythritol triacrylate ester and pentaerythritol tetraacrylate ester, etc. However, even if the proposed combination were made, the claimed invention would not result. Namely, *Dohler et al* fails to cure the previously noted deficiencies possessed by the primary combination of *Maschwitz et al* and *Lipp*. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 20 stands rejected under 35 U.S.C. §103(a) as being obvious over *Maschwitz et al* in view of *Lipp*, as applied to claim 1, and further in view of U.S. Patent No. 6,120,901 to Ojeda et al (hereafter "*Ojeda et al*") on the grounds set forth in paragraph 4 of the Official Action. *Ojeda et al* is cited as allegedly teaching the inclusion of an ultraviolet

absorbing agent in the polymeric film. However, even if the proposed combination were appropriate, the claimed invention would not result. Namely, *Ojeda et al* fails to disclose, or even suggest, those elements of the presently claimed invention which are missing from the primary combination of *Maschwitz et al* and *Lipp*. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim 22 stands rejected under 35 U.S.C. §103(a) as being obvious over *Maschwitz et al* in view of *Lipp*, as applied to claim 1, and further in view of U.S. Patent No. 5,071,206 to Hood et al (hereafter "*Hood et al*") on the grounds set forth in paragraph 5 of the Official Action. This rejection is respectfully traversed.

Hood et al is cited as allegedly teaching a polymeric film located between adjacent metallized layers. However, even if the proposed combination were appropriate, the claimed invention would not result. Namely, *Hood et al* fails to cure the previously noted deficiencies noted in connection with the primary combination of *Maschwitz et al* and *Lipp*. In fact, *Hood et al*, like *Maschwitz et al*, teaches a laminate construction having many metallized and dielectric layers, thus possessing those disadvantages previously noted and discussed in the present specification. Reconsideration and withdrawal of the rejection is respectfully requested.

EXHIBIT A

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: October 20, 2003

By: _____
Scott W. Cummings
Registration No. 41,567

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

EXHIBIT A

Patent
Attorney's Docket No. 032732-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	)	
	)	
Stephen N. PHILLIPS et al.	)	Group Art Unit: 2872
Stephen N. PHILLIPS [as amended]	)	
	)	Examiner: Craig Curtis
Application No.: 09/982,813	)	
	)	Confirmation No.: 8278
Filed: October 22, 2001	)	
	)	
For: SOLAR CONTROL FILM CONTAINING CARBON BLACK AND PROCESS FOR PREPARING THE SOLAR CONTROL FILM	)	

REQUEST PURSUANT TO 37 C.F.R. §1.48 TO CHANGE INVENTORSHIP

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants respectfully request that the inventorship in the above-identified patent application be corrected pursuant to 37 C.F.R. §1.48(b) by removing George L. Quinlan.

The undersigned has been advised that as a result of the cancellation of claims 23-29, the sole inventor of the remaining claimed subject matter is Mr. Stephen N. Phillips.

Further, the processing fee of $130.00 required by 37 C.F.R. §1.17(i) is enclosed.

Granting of this Request and deleting George L. Quinlan as co-inventor in the present application is respectfully requested.

EXHIBIT A

Should any questions arise in connection with this matter, the undersigned respectfully request that he be contacted at the number indicated below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: October 20, 2003

By: _____
Scott W. Cummings
Registration No. 41,567

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620